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REPORT NO. 3

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Cotton Fiber and Processing Test Results

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CROP of 1977

Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 21, 1977

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1977

Discussion of Test Results

Short staple cottons tested from the Southwestern Area through October 14 this season are slightly longer and more uniform than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. Samples tested are finer and considerably stronger than a year earlier. Shirley Analyzer nonlint content is higher, but picker and card waste is lower. Yarns spun from these samples are stronger but have slightly lower appearance grades. The average spinning potential yarn number is higher.

Medium staple samples tested from the South Central Area are slightly longer than a year ago at this time. Cottons tested to date are coarser. The Shirley Analyzer nonlint content is higher. Yarns spun from these samples are weaker and have lower appearance grades. Yarn imperfections are higher than a year ago.

Medium staple samples tested from the Southwest show cotton fibers to be slightly shorter but more uniform than last year. Fiber strength is higher at zero gage strength tests. Picker and card waste is lower than a year ago. Yarns spun from these samples show lower appearance grades. The average spinning potential is higher than a year ago.

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These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.1/ These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

1/ Summary of Cotton Fiber and Processing Test Results, Crop of 1976, USDA, AMS, Cotton Division, June 1977.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through October 14, 1977 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results				
		Fibrograph		Mike fineness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appearance	Imperfections	
	No.	Inches	Pct.	Rdg.	Mpsi	G/tex	Pct.	Pct.	Lbs.	Index	No.	Yarn No.
									22s Carded Yarn			
Short Staple:												
Southwest												
1976	3	.96	44	4.4	83	20	2.8	7.1	83	113	12	36
1977	19	.97	45	4.0	91	21	3.4	5.4	98	111	12	43
Medium Staple:												
Southeast												
1976	-	-	-	-	-	-	-	-	-	-	-	-
1977	7	1.06	47	4.8	88	23	3.4	5.8	101	97	23	49
South Central												
1976	3	1.10	46	4.3	88	22	2.9	5.9	112	107	15	59
1977	47	1.11	46	4.6	87	23	3.6	5.9	108	97	23	58
Southwest												
1976	22	1.07	45	4.2	81	22	3.1	6.0	105	99	19	52
1977	30	1.06	46	4.2	84	22	3.2	5.4	106	93	17	59
West												
1976	-	-	-	-	-	-	-	-	-	-	-	-
1977	1	1.10	46	4.8	86	24	2.6	6.2	102	90	29	58
Significant difference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1977

Production Area, Classification & Sample Number			Fiber Test Results									Processing Test Results - Carded Yarns									
			Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten-tial
No	Grade Name & Code	Stple	2.5% span	Unif		Zero Gage	1/8" Gage			Gra	Yel		8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	
		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No
SOUTHWEST AREA																					
CENTRAL TEXAS																					
BARDWELL							LANKART 57						98 PERCENT								
2	MID LT SP	32 31	0.98	47	4.4	91	20	5.7	2.7	2	4	4.8	279	96	6.8	5.8	130	120	20	11	42
BRANDON							LANKART 611						100 PERCENT								
3	MID LT SP	32 30	0.94	46	4.3	89	22	5.4	2.7	2	4	5.4 1/	281	93	7.3	6.0	130	120	17	9	38
ITASCA							LANKART LX571						100 PERCENT								
2	MID	31 31	.98	45	4.4	94	22	5.8	3.5	2	4	5.2	297	100	7.4	5.9	130	120	26	13	46
PALMER							LANKART LX571						99 PERCENT								
2	SLM LT SP	42 31	0.96	46	4.4	93	20	5.5	3.8	3	4	6.2	276	93	6.5	5.5	130	120	17	8	42
NORTHWEST TEXAS																					
PETERSBURG							PAYMASTER 303						90 PERCENT								
1	MID	31 32	0.98	46	4.6	90	21	5.1	2.1	1	4	4.8	306	99	7.5	6.0	130	120	17	9	45

1/ Cotton stuck to processing rolls

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977

Production Area, Classification & Sample Number			Fiber Test Results									Processing Test Results - Carded Yarns									
			Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potential
No	Grade Name & Code	Stple	2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	
		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No
SOUTHEAST AREA																					
ALABAMA																					
CENTRE							DIXIE KING III						100 PERCENT								
1	SLM LT SP	42 34	1.04	47	4.8	90	21	5.9	3.2	3	4	4.9	110	36	5.7	3.8	110	90	19	11	49
HILLSBORO							STONEVILLE 213						90 PERCENT								
2	SLM LT SP	42 34	1.08	47	4.9	85	22	5.5	2.2	4	4	5.8	101	33	6.0	4.1	110	80	21	18	52
MERIDIANVILLE							STONEVILLE 603						100 PERCENT								
1	SLM LT SP	42 33	1.06	45	4.8	89	23	5.6	2.9	4	4	5.4	103	31	5.4	3.8	90	70	23	18	52
GEORGIA																					
ALLENTOWN							COKER 201						100 PERCENT								
1	SLM LT SP	42 33	1.06	46	4.6	93	22	5.2	4.0	4	4	7.4	81	25	4.4	3.4	90	70	29	22	40
SOUTH CENTRAL AREA																					
ARKANSAS																					
ALTHEIMER							DELTAPINE 16						100 PERCENT								
1	SLM	41 36	1.17	46	4.6	84	23	6.0	3.1	1	2	5.9	116	40	6.7	5.1	90	60	38	27	69
BISCOE							STONEVILLE 213						99 PERCENT								
1	SLM	41 35	1.08	47	4.8	85	22	5.6	3.2	3	3	6.2	107	35	6.0	4.3	100	80	21	16	57
EUDORA							DELTAPINE 61						100 PERCENT								
2	SLM	41 35	1.13	47	4.8	84	25	6.0	3.1	2	2	5.8	113	39	6.3	4.4	110	90	17	15	62
VICTORIA							STONEVILLE 256						100 PERCENT								
2	SLM	41 35	1.14	46	4.7	94	23	5.6	3.5	3	3	6.4	106	35	5.3	3.8	90	70	18	18	59
WYNNE							DELTAPINE 16						100 PERCENT								
1	SLM	41 34	1.05	46	4.3	86	24	5.6	3.1	2	3	6.2	110	36	6.0	4.6	110	70	26	23	60
LOUISIANA																					
LAKE PROVIDENCE							STONEVILLE 213						100 PERCENT								
1	LM PLUS	50 35	1.10	46	4.7	91	23	5.2	3.7	2	2	6.2	100	31	5.6	3.7	90	60	30	23	50
SHREVEPORT							DELTAPINE 16						100 PERCENT								
1	SLM	41 35	1.08	46	5.0	85	22	5.6	2.2	1	3	5.3	101	33	5.9	4.3	110	90	16	14	54
SICILY ISLAND							STONEVILLE 213						100 PERCENT								
1	SLM	41 34	1.09	48	5.3	88	22	6.0	2.7	3	4	6.8	95	29	5.8	3.5	100	80	26	18	49

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977--(Continued)

Production Area, Classification & Sample Number			Fiber Test Results									Processing Test Results - Carded Yarns									
			Digital Fibrograph			Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potential
No	Grade Name & Code	Stple	2.5% span	Unif.	Mike	Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	
		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No
SOUTH CENTRAL AREA--(Continued)																					
MISSISSIPPI																					
BELZONI							DELTAPINE 16						100 PERCENT								
1	SLM	41	35	1.14	46	4.3	83	22	5.0	3.8	2	2	5.1	113	38	6.7	4.4	100	80	16	13	68
BRANDON							DELTAPINE 16						75 PERCENT								
1	SLM LT SP	42	34	1.10	45	4.9	80	21	5.4	3.2	3	3	6.3	89	27	5.6	4.2	100	70	18	15	49
COMO							STONEVILLE 213						98 PERCENT								
1	SLM	41	34	1.09	46	4.5	84	21	5.1	4.0	2	3	6.0	104	34	6.0	4.3	100	70	22	20	54
INDIANOLA							STONEVILLE 213						100 PERCENT								
2	LM	51	36	1.13	48	4.9	89	24	5.3	5.9	2	2	7.0	112	38	6.1	4.7	100	80	18	15	63
INDIANOLA							STONEVILLE 825						100 PERCENT								
2	LM	51	35	1.11	46	5.0	91	23	5.7	5.1	3	2	8.0	100	31	5.1	3.9	100	70	19	13	55
SCOTT							DELTAPINE 55						100 PERCENT								
1	SLM	41	34	1.09	44	4.3	92	24	5.3	3.1	2	2	5.3	108	35	5.7	4.1	100	70	19	14	57
TRIBBETT							STONEVILLE 213						100 PERCENT								
1	SLM	41	35	1.11	47	5.0	89	23	5.7	3.3	2	3	6.4	108	36	5.4	3.8	110	90	14	11	55
TRIBBETT							STONEVILLE 256						100 PERCENT								
2	LM	51	35	1.13	45	4.3	95	21	5.7	3.9	3	2	6.6	104	35	5.0	3.7	100	80	21	16	59
WATER VALLEY							DELTAPINE 16						75 PERCENT								
1	SLM LT SP	42	34	1.08	45	4.5	87	21	5.5	2.7	3	4	6.0	101	34	5.9	4.7	90	70	23	15	52
MISSOURI																					
HAYTI							STONEVILLE 213						98 PERCENT								
1	SLM	41	35	1.10	47	5.3	88	22	5.3	3.2	2	3	6.3	105	32	5.1	4.4	120	90	27	18	56
PARMA							STONEVILLE 213						100 PERCENT								
1	LM	51	35	1.10	46	4.7	81	22	5.8	6.4	3	3	8.8	101	33	6.0	4.2	90	70	45	34	52
SENATH							AUBURN M						100 PERCENT								
2	LM LT SP	52	34	1.07	45	3.9	79	21	5.4	5.3	4	4	8.0	93	28	5.8	4.3	90	70	46	34	52
SENATH							DELTAPINE 61						76 PERCENT								
2	SLM LT SP	42	35	1.14	46	4.4	81	23	5.5	3.8	3	3	6.2	106	35	6.7	4.9	80	70	33	21	59

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1977--(Continued)

Production Area, Classification & Sample Number			Fiber Test Results									Processing Test Results - Carded Yarns									
			Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten-tial
No	Grade Name & Code	Stple	2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	
		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No
SOUTH CENTRAL AREA--(Continued)																					
TENNESSEE																					
RIDGELY							STONEVILLE 213						90 PERCENT								
1 SLM	41	35	1.08	47	5.0	86	23	6.1	2.9	3	4	5.7	98	30	5.8	3.9	100	70	30	24	49
ROSEMARK							AUBURN M						70 PERCENT								
1 SLM	41	34	1.06	46	4.3	91	23	5.8	3.0	2	3	5.6	107	34	5.8	4.2	90	70	26	21	53
SOUTHWEST AREA																					
SOUTH TEXAS																					
GANADO							DELTAPINE 16						90 PERCENT								
3 SLM LT SP	42	33	1.05	47	4.6	85	22	5.7	3.9	2	3	6.2	103	34	6.0	4.4	90	70	24	25	57
SINTON							TAMCOT SP37						93 PERCENT								
4 MID	31	33	1.06	44	3.3	81	21	6.1	2.6	0	3	5.8	106	33	6.5	4.4	80	70	22	22	58
CENTRAL TEXAS																					
GRANDVIEW							TAMCOT SP37						90 PERCENT								
2 MID	31	31	0.98	43	4.0	92	20	5.9	3.2	1	4	6.2	86	28	5.1	3.7	90	70	17	13	39
WEST AREA																					
CALIFORNIA																					
RIPLEY							DELTAPINE 61						96 PERCENT								
1 MID	31	34	1.10	46	4.8	86	24	5.5	2.6	1	3	6.2	102	34	5.5	4.1	90	70	29	26	58

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1977

Production Area, Classification & Sample Number			Fiber Test Results									Processing Test Results - Carded Yarns									
			Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C and Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten-tial
No	Grade Name & Code	Stple	2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	
		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No
SOUTH CENTRAL AREA																					
MISSISSIPPI																					
LAKE CORMORANT							COKER 310							100 PERCENT							
1 SLM	41	36	1.15	45	4.6	89	24	5.1	3.9	3	4	6.7	109	37	5.0	4.0	100	70	26	20	64

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